CLAIMS

CLAIM 1

5   An apparatus for controlling traffic over a network, comprising:
a switching processor, including a plurality of ports connectable to a network line
and packet counter registers for storing counting information on packets ingressed and
egressed through said plurality of ports and for controlling ingress and egress packet traffic
volume for each of said plurality of ports in response to an input traffic control command;

10   and
a controller for registering, as a user value, traffic volume for each of said plurality
of ports in an internal register, said traffic volume being inputted through a data input unit,
and for comparing a user value for each of said plurality of ports with a value in a
respective one of said packet counter registers for said each port so as to output said input

15   traffic control command for said each port to said switching processor.

CLAIM 2

An apparatus for controlling traffic over a network, comprising:

20   a switching processor, including a plurality of ports connectable to a network line
and a packet counter register for storing counting information on packets ingressed and/or
egressed through said plurality of ports and for controlling ingress and/or egress packet
traffic volume for said plurality of ports in response to an input traffic control command;
and

25   a controller for registering, as a user value, traffic volume for said plurality of
ports in an internal register, said traffic volume being inputted through a data input unit,
and for comparing a user value for said plurality of ports with a value in a respective one of
said packet counter registers for said plurality of ports so as to output said input traffic
control command for said plurality of ports to said switching processor.

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CLAIM 3

The apparatus of claim 2, wherein said ingress and/or egress traffic volume is controlled

35   via a token bucket, which is shared between the ports of said plurality of ports.

CLAIM 4

The apparatus of one of the claims 1 to 3, wherein said input traffic control

40   command is a control command that enables said packets ingressed or egressed through
said each port to be queued, dropped, or paused.

CLAIM 5

45   A method for controlling a traffic volume ingressed or egressed via a port or a plurality of
ports of a switching processor, comprising the steps of
entering a user value for a maximum traffic volume,
comparing said user value with a respective value for said traffic volume, said respective

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value being written in a packet counter register, and
issuing a traffic control command to said switching processor.

CLAIM 6

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The method of claim 5, wherein said traffic volume relates to a plurality of ports and said traffic volume is controlled via a token bucket, which is shared between the ports of said plurality of ports.

10   **CLAIM 7**

The method of claim 5 or 6, wherein a packet is dropped by setting the frame size parameter smaller than the minimum Ethernet frame size.

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